

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-9 (Cancelled)

Claim 10 (New) A method for attaching two surfaces to each other, comprising:
providing a bioadhesive composition comprising an aqueous solution of a bioadhesive polyphenolic protein,
providing a preparation comprising periodate ions;
mixing said bioadhesive composition and said preparation to form an adhesive composition comprising at least 0.465 mmol/g of periodate ions;
applying said adhesive composition to at least one of the two surfaces;
joining said two surfaces; and
curing said adhesive composition,
wherein said bioadhesive polyphenolic protein comprises 30-300 amino acids and consists of tandemly linked peptide repeats comprising 3-15 amino acid residues; and
at least 3 % of said 30-300 amino acids are 3,4-dihydroxy-L-phenylalanine (DOPA).

Claim 11 (New) A method according to claim 10, wherein the amount of said 30-300 amino acids that are DOPA is in the range of 6-30 %.

Claim 12 (New) A method according to claim 10 wherein the concentration of periodate ions in said adhesive composition is at least 1.9 mmol/g.

Claim 13 (New) A method according to claim 10 wherein the concentration of periodate ions in said adhesive composition is at least 2.0 mmol/g.

Claim 14 (New) A method according to claim 10 wherein the concentration of said bioadhesive polyphenolic protein in said adhesive composition is in the range of 10-50 mg/ml.

Claim 15 (New) A method according to claim 10 wherein at least one of said two surfaces is a biological surface.

Claim 16 (New) A method according to claim 10 wherein at least one of said two surfaces is a non-biological surface.

Claim 17 (New) A method for attaching two surfaces to each other, comprising:
applying a bioadhesive composition comprising an aqueous solution of a bioadhesive polyphenolic protein and a preparation comprising periodate ions to at least one of the two surfaces;
mixing said bioadhesive composition and said preparation to form an adhesive composition comprising at least 0.465 mmol/g of periodate ions;
joining said two surfaces; and
curing said adhesive composition,
wherein said bioadhesive polyphenolic protein comprises 30-300 amino acids and consists of tandemly linked peptide repeats comprising 3-15 amino acid residues; and
at least 3 % of said 30-300 amino acids are 3,4-dihydroxy-L-phenylalanine (DOPA).

Claim 18 (New) A method for coating a surface, comprising:
providing a bioadhesive composition comprising an aqueous solution of a bioadhesive polyphenolic protein;
providing a preparation comprising periodate ions;
mixing said bioadhesive composition and said preparation to form an adhesive composition comprising at least 0.465 mmol/g of periodate ions;
coating the surface with said adhesive composition; and
curing said coating,

wherein said bioadhesive polyphenolic protein comprises 30-300 amino acids and consists of tandemly linked peptide repeats comprising 3-15 amino acid residues; and

at least 3 % of said 30-300 amino acids are DOPA.

Claim 19 (New) A method according to claim 18, wherein the amount of said 30-300 amino acids that are DOPA is in the range of 6-30 %.

Claim 20 (New) A method for coating a surface, comprising:

applying a bioadhesive composition comprising an aqueous solution of a bioadhesive polyphenolic protein and a preparation comprising periodate ions to the surface;

mixing said bioadhesive composition and said preparation to form a coating;

and

curing said coating,

wherein said bioadhesive polyphenolic protein comprises 30-300 amino acids and consists of tandemly linked peptide repeats comprising 3-15 amino acid residues; and

at least 3 % of said 30-300 amino acids are DOPA.

Claim 21(New) A kit for attaching two surfaces to each other or for coating a surface, comprising:

a bioadhesive composition comprising an aqueous solution of a bioadhesive polyphenolic protein;

a preparation comprising periodate ions; and

written instructions showing how to use the kit in accordance with the method of claim 10,

wherein said bioadhesive polyphenolic protein comprises 30-300 amino acids and consists of tandemly linked peptide repeats comprising 3-15 amino acid residues; and

at least 3 % of said 30-300 amino acids are DOPA.

Claim 22 (New) A kit according to claim 21, further comprising at least one device for applying a solution created by mixing said bioadhesive protein and said preparation to at least one of the surfaces that are to be attached to each other or to the surface that is to be coated.